

**Searles Valley Minerals Operations Inc. (Permittee)**  
**Searles Domestic Water Company (A Wholly Owned Subsidiary)**  
**2011 Consumer Confidence Report**

June 29, 2012

*We test the drinking water quality for many constituents as required by State and Federal Regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2011.*

**Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.**

**Source of Drinking Water** – All water delivered by the Searles Domestic Water Company (SDWC) to its customers is imported from five Searles Valley Minerals (SVM) owned wells in the Indian Wells Valley. These wells are known as Westend Wells #2 and #4; and Indian Wells #35, #36 and #30. Water is transported into the Searles Valley through two 29-mile pipelines. A portion of this imported water is sold to SDWC for domestic use and the remainder is used by SVM for their manufacturing plants. The imported water is delivered, fully chlorinated, and is metered into our distribution system. In 2011 the SDWC purchased 75 million gallons of water for domestic use.

**Contact Information:** We hope this report furthers your understanding of the quality of the SDWC's water supply. For answers to water quality questions and for additional water quality data, contact Audrey Schuyler or Bob Wilhelm at (760) 372-5326.

**TERMS USED IN THIS REPORT<sup>1</sup>:**

**“Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.” Levels above the MCL do not mean adverse health consequences will result from consumption of the water.

**“Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).” Levels above the MCLG do not mean adverse health consequences will result from consumption of the water.

**“Public Health Goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.” Levels above the PHGs do not mean adverse health consequences will result from consumption of the water.

**“Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.” Levels above the MRDL do not mean adverse health consequences will result from consumption of the water.

**“Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.” Levels above the MRDLG do not mean adverse health consequences will result from consumption of the water.

**“Primary Drinking Water Standards (PDWS):** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.” Levels above the PDWS do not mean adverse health consequences will result from consumption of the water.

**“Secondary Drinking Water Standards (SDWS):** MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.” Levels above the SDWS do not mean adverse health consequences will result from consumption of the water.

**“Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.”

**“Regulatory Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.” Levels above the AL do not mean adverse health consequences will result from consumption of the water.

**Variances and Exemptions:** Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

**ND:** not detectable at testing limit

**ppm:** parts per million or milligrams per liter (mg/L)

**ppb:** parts per billion or micrograms per liter (ug/L)

**ppt:** parts per trillion or nanograms per liter (ng/L)

**pCi/L:** picocuries per liter (a measure of radiation)

<sup>1</sup> SDWC is required by regulation to use certain terms defined at California Code of Regulations, Title 22, Section 64481, and denotes the use of those terms with quotation marks.

**California Code of Regulations, Title 22, Section 64481 further provides:** “The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

**Contaminants that may be present in source water include:**

- *Microbial contaminants*, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides*, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, that can be naturally-occurring or be the result of oil and gas production and mining activities.

**In order to ensure that tap water is safe to drink**, the USEPA and the state Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.”

**The following tables list all of the drinking water substances that were detected during the most recent sampling for the constituent.** The presence of these substances in the water does not necessarily indicate that the water poses a health risk. If you have a concern about the safety of your water, you should discuss it with your health professional and/or the USEPA or Department officials. The Department allows us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

SAMPLING RESULTS FOR SODIUM AND HARDNESS						
Substance (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	“Typical Source of Contaminant”
Sodium (ppm)	06/11	104.0	36 - 170	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	06/11	126.96	5.6 - 490	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

DETECTION OF SUBSTANCES WITH A <u>PRIMARY</u> DRINKING WATER STANDARD						
Substance (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	“Typical Source of Contaminant” <sup>2</sup>
Arsenic (ppb)	03/11 06/11 09/11 12/11	13.44*	2.8 - 42*	10	.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	06/11	.042	ND - .210	1	2	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Fluoride (ppm)	2011 Weekly	1.07	.8 – 1.5	2	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2008 2009 2010 2011	.92	ND – 6.7	15	(0)	Erosion of natural deposits
Halo Acetic Acids (ppb)	2010 2011	.26	ND– 1.1	60	none	Byproduct of drinking water disinfection
Nitrate (as Nitrate, NO3) (ppm)	06/11	5.62	ND – 16	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Turbidity (NTU)	06/11	.10	ND – 0.3	<u>TT</u> Secondary 5	none	Soil runoff
TTHM's (Total Trihalomethanes) (ppb)	2010 2011	2.76	2.2 – 8.5	80	none	By-product of drinking water disinfection
Uranium (pCi/L)	09/06 09/07	1.5	ND – 3.0	20	0.43	Erosion of natural deposits

\*Any exceedence of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

DETECTION OF SUBSTANCES WITH A <u>SECONDARY</u> DRINKING WATER STANDARD						
Substance (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	“Typical Source of Contaminant” <sup>3</sup>
Chloride (ppm)	06/11	129.8	12 - 490	500	none	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	06/11	36.6	13 - 85	500	none	Runoff/leaching from natural deposits; industrial wastes
Odor - Threshold (units)	06/11	1	1	3	none	Naturally-occurring organic materials
Specific Conductance (umhos)	06/11	752	290 - 1900*	1600	none	Substances that form ions when in water; seawater influence
Total Dissolved Solids (TDS) (ppm)	06/11	442	160 - 1100*	1000	none	Runoff/leaching from natural deposits

\*Any exceedence of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

<sup>2</sup> As noted above, the potential sources for many substances are numerous, so this list is not comprehensive. This list is quoted from California Code of Regulations, Title 22, Appendix 64481-A.

<sup>3</sup> As noted above, the potential sources for many substances are numerous, so this list is not comprehensive. This list is quoted from California Code of Regulations, Title 22, Appendix 64481-B.

## DETECTION OF UNREGULATED SUBSTANCES

Substance (and reporting units)	Sample Date	Level Detected	Notification Level	
Boron (ppm)	06/11	0.896	1	
pH (units)	06/11	8.3		
Potassium (ppm)	06/11	2.32		
Sodium (ppm)	06/11	104		
Vanadium (ppb)	06/11	16.0	50	

### Additional General Information on Drinking Water

California Code of Regulation, Title 22, Section 66481 also provides that “Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA’s Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).”

**Lead and Drinking Water:** In 1991 the U.S. Environmental Protection Agency (USEPA) set final regulations for lead and copper in drinking water. This regulation requires analyzing home tap water samples instead of analyzing the water before it enters the distribution system. SDWC sampled 10 sites for lead and copper in 2011. All samples were within allowable limits. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is believed to be primarily from materials and components associated with service lines and home plumbing. SDWC is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

### Summary Information for Substances Exceeding an MCL, MRDL, or AL, or a Violation of Any Treatment Technique or Monitoring and Reporting Requirement

**Arsenic MCL Exceedence:** We believe it is important for you to know there is nothing new related to the amount of arsenic in your water. Arsenic is an abundant natural element and is present in groundwater from minerals dissolving from weathered rocks and soils. It normally is found at about 2 parts per billion in water and there are trace amounts of it in all living matter. Arsenic is abundant naturally in the western United States, particularly in arid areas. Some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or circulatory system problems, and may have an increased risk of getting cancer. If you are concerned about arsenic in your water, you may wish to have your water tested and/or talk to your health care professional. Information on arsenic in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800-426-4791) or at <http://www.epa.gov/safewater>.

Please note, the amount of arsenic in the water has not changed. The standard that water systems must meet was changed from 50 ppb to 10 ppb on January 23, 2006. Under the new federal standards, water from three of the five wells in our system had levels of arsenic above the drinking water standard during the initial sampling. Water analyses from the five wells detected arsenic concentration ranging from 2.8 – 42 ppb. The running average of the quarterly samples from the three wells originally over 10 ppb, on which the EPA bases compliance, indicates two wells consistently remain above the

new federal standard, with the running average on the third well slightly exceeding the standard in 2011. This situation is not due to changes in water quality, but reflects the new regulations.

The new federal arsenic regulation provides a transition period for monitoring and developing an approach to comply with the new limits. In addition to quarterly monitoring and reporting, Searles Valley Minerals conducted a pilot study in October 2008 for water treatment to remove arsenic. Bid proposals were received for the purchase and installation of arsenic removal equipment. The proposals were reviewed and a project team visited two existing treatment sites to evaluate the equipment and identify any operational concerns. A vendor was selected and appropriate funding for this project was approved. In August 2010 orders for equipment were placed and site preparation began. The project was completed in December 2012. Following inspection and review of documentation, the California Department of Public Health issued a permit amendment to Searles Valley Minerals January 25, 2012 for operation of the new arsenic treatment facility. Searles Valley Minerals has scheduled the arsenic treatment plant startup for May-June 2012. As Searles Valley Minerals consumes the greatest volume of the potable water of our system, the company will shoulder the greatest amount of the cost of treatment.

**Well #2 MCL Exceedences:** The following substances at Well #2 were detected at levels which exceed the secondary MCL's: **Specific Conductivity** is consistently higher than the secondary MCL of 1600 umhos; **Total Dissolved Solids** are consistently higher than the secondary MCL of 1000 ppm. Blending with water from the other wells brings the average detection level to levels below the secondary MCL's. Secondary MCL's are set relative to aesthetic effects (e.g., color, taste and odor). If you are concerned about any of these exceedences in your water, you may wish to have your water tested and/or talk to your health care professional. Information on these substances in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800-426-4791) or at <http://www.epa.gov/safewater>.

#### **Additional General Information**

**Water Treatment:** Groundwater is naturally low in bacteria substances, but a minimum amount of sodium hypochlorite is added to keep the distribution system disinfected and for taste and odor control.

**Water Conservation:** Did you know that the average U.S. household uses 350 gallons of water per day? Here are some handy tips to conserve water:

Take shorter showers; only do full loads of wash; run dishwasher when fully loaded; water plants only when necessary; fix leaking toilets and faucets.

**Water Costs Money...don't waste it!** A dripping faucet can waste 3 gallons a day..a total of 1095 gallons a year. Teach your kids about water conservation to ensure a future generation that uses water wisely.

**Customer Service:** The SDWC receives numerous inquiries from customers. Our goal is to provide the highest possible level of service in responding to these inquiries. Our experienced and knowledgeable staff, which includes two Grade III and one Grade I Water Distribution Operators, can provide answers to most questions over the telephone. Specific problems may require a visit to the customer's home or business, collection and testing of water samples, and other investigative actions. Whatever the situation, all inquiries are handled as quickly and thoroughly as possible.